

the basis of this account, invented the story about a shedding of the teeth. Nowadays it is well known that neither the narwhal nor any other Cetacean sheds the teeth.

Danish Arctic Station, Disko, Greenland.

NOTES ON NEW HAMPSHIRE MAMMALS

BY C. F. JACKSON

During the past few years an attempt has been made to collect complete data concerning the distribution and relative abundance of the vertebrates of New Hampshire. In making this survey some very interesting mammals have been discovered which were thought to have been driven out of the state or exterminated long ago.

Perhaps the most interesting discovery is that of a pair of cougars whose range extends along the east side of the Androscoggin River in the town of Cambridge to the southern shores of Lake Umbagog. Records of the occurrence of this species in recent years are very meager. For the southern part of the state below the White Mountains, the latest record I can find is that of a large male which was shot near Epping, New Hampshire, in 1870. In 1885 a specimen was taken in the White Mountains which is the latest record I have for the state. Rumors have been heard from time to time of the cougar occurring in Maine and in the Green Mountains of Vermont.

Dr. E. W. Nelson of the Biological Survey has referred me to two records, one from Vermont and one from Maine. The latest Vermont record is furnished by Merriam in the Proceedings of the Washington Academy of Sciences (volume III, 1901, page 582). According to this record the last one killed was in 1894. In the same letter Doctor Nelson referred me to The American Field (volume 66, page 400); which cites the killing of a panther in Maine near Mount Kineo in 1906.

It would seem that the species has been able to survive in the less frequented portions of Maine.

It is not known whether the two panthers referred to above are male and female, although this is probably the case. One was seen at very close range by Mr. H. T. Woodward of Berlin and was thought by him to be a male.

A second unusual species is the wolverine, a pair of which were found in 1918 in the Diamond region east of the Connecticut Lakes. Two young animals were taken, which would lead one to believe that the species was breeding to a certain extent within this wild region.

The beavers, which have always persisted, are now represented by two rather prosperous colonies in the Diamond region. In addition to these the work of isolated individuals is occasionally found on both the Dead and the Swift Diamond and their tributaries.

The otter is also found, particularly in the northern parts of the state, although the species is rapidly being exterminated.

At present the authentic record of New Hampshire mammals occurring within the state during the past five years, includes all the large species known to have occurred formerly with the exception of the timber wolf, the northern gray fox and the woodland caribou.

The last record in my possession of the timber wolf is that of a specimen taken in the White Mountains in 1887. In regard to the northern gray fox, the only record which I have is that of the type specimen described by Merriam in 1903, which was taken at Marlboro, New Hampshire. Tracks of a small herd of four woodland caribou have been reported from near the Canadian line in the Connecticut Lake region by an old trapper. This report, however, has not been confirmed. While a specimen was obtained in Houlton, Maine, in 1893 and tracks seen as late as 1896 (Recreation, volume IV, 1896, page 140) no caribou are known to have occurred within this state for a number of years.

The following is a preliminary checklist of the mammals known to have occurred within the state during the five year period from 1915 to 1920. The list is exclusive of the families Muridæ and Zapodidæ, and the orders Insectivora and Chiroptera. Sufficient collecting has not as yet been done to make even a preliminary report on these groups.

1. *Phocæna phocæna* (Linn). Common Harbor Porpoise.—Comparatively abundant off Portsmouth Harbor.
2. *Odocoileus virginianus borealis* (Miller). Northern Virginia Deer.—Common throughout the state.
3. *Alces americanus* Jardine. Moose.—Found only rarely in the northern part of Coos County.
4. *Sciurus hudsonicus* (Erxleben). Northern Red Squirrel.—Very common in the northern part of the state.
5. *Sciurus hudsonicus loquax* Bangs. Southern Red Squirrel.—Common throughout southern part of the state.
6. *Sciurus carolinensis leucotis* (Gapper). Northern Gray Squirrel.—Common throughout southern two-thirds of the state.
7. *Tamias striatus lysteri* (Richardson). Chipmunk.—Locally common throughout the state.
8. *Marmota monax preblorum* Howell. Woodchuck.—Very common throughout the cultivated regions.

9. *Glaucomys sabrinus macrotis* (Mearns). Canadian Flying Squirrel.—Found locally in the northern part of the state.

10. *Glaucomys volans* (Linn.). Southern Flying Squirrel.—Found occasionally in the southern part of the state.

11. *Castor canadensis* Kuhl. Beaver.—Two colonies in the northern part of Coos County.

12. *Erethizon dorsatum* (Linn.). Porcupine.—Fairly common throughout the northern two-thirds of the state.

13. *Lepus americanus virginianus* (Harlan). Varying Hare.—Very common locally throughout the state in mountainous parts; abundant near tree line.

14. *Sylvilagus transitionalis* (Bangs). Northern Coney Rabbit.—Abundant south of White Mountains.

15. *Phoca vitulina* Linn. Harbor Seal.—Usually three or four are found during the winter in Great Bay.

16. *Felis couguar* Kerr. Cougar.—Two individuals as noted above.

17. *Lynx canadensis* Kerr. Canada Lynx.—Occasionally found from White Mountains northward.

18. *Lynx rufa* (Schr.). Bobcat.—Fairly common throughout the wooded parts of the state.

19. *Vulpes fulva* (Desm.). Red Fox.—Common throughout state.

20. *Lutra canadensis* (Schr.). Otter.—Very rarely found. In the northern part of the state.

21. *Mephitis nigra* (Peale and Beauv.). Eastern Skunk.—Locally abundant.

22. *Gulo luscus* (Linn.). Wolverine.—As noted above.

23. *Mustela vison* Schr. Mink.—Occasionally found throughout the state.

24. *Mustela cicognanii* Bon. Little Brown Weasel.—Quite common throughout the state.

25. *Mustela noveboracensis* (Emmons). Large Brown Weasel.—Fairly common in the southern part of the state.

26. *Martes americana* (Turt.). Pine Marten.—Found occasionally in the northern part of the state.

27. *Martes pennanti* (Erx.). Fisher.—Found rarely in the northern part of the state.

28. *Procyon lotor* (Linn.). Raccoon.—Occasionally found in the southern two-thirds of the state.

29. *Ursus americanus* Pallas. Black Bear.—Rather common in the White Mountain region and the northern part of the state.

New Hampshire College, Durham, N. H.